Manuscript no. HAEMATOL/2009/018671 entitled “Cathepsin X is secreted by human osteoblasts, digests CXCL-12 and impairs adhesion of hematopoietic stem and progenitor cells to osteoblasts” Authors: Nicole D. Staudt, Wilhelm K. Aicher, Hubert Kalbacher, Stefan Stevanovic, Adriana K. Carmona, Matthew Bogyo, and Gerd Klein

Information about the contributions of each person named as having participated in the study

1) Guarantor(s), i.e., persons who are responsible for the integrity of the work as a whole:
   • Nicole D. Staudt, Section for Transplantation Immunology and Immunohematology, University of Tübingen, nicole.staudt@medizin.uni-tuebingen.de
   • Gerd Klein, Section for Transplantation Immunology and Immunohematology, Center for Medical Research, University of Tübingen, gerd.klein@uni-tuebingen.de

According to the International Committee of Medical Journal Editors (ICMJE) (http://www.icmje.org/ethical_1author.html): “Authorship credit should be based on: 1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; and 3) final approval of the version to be published. Authors should meet conditions 1, 2, and 3 ……………………. Acquisition of funding, collection of data, or general supervision of the research group alone does not constitute authorship”.

The guarantors of this manuscript confirm that all persons designated as authors qualify for authorship, and that each author has participated sufficiently in the work to take public responsibility for appropriate portions of the content.

2) Author who participated in the conception of the study: Gerd Klein

3) Design & Methods. The following authors were responsible for specific investigations (please detail):
   • Name Surname was/were responsible for ……

4) Results. The following authors were responsible for specific portions of the results, including figures and tables (please indicate the person responsible for each figure and each table):
   • Nicole D. Staudt was responsible for Figure 1.
   • Nicole D. Staudt and Matthew Bogyo were responsible for Figure 2.
   • Nicole D. Staudt was responsible for Figure 3.
   • Nicole D. Staudt and Adriana K. Carmona were responsible for Figure 4.
   • Nicole D. Staudt and Wilhelm K. Aicher were responsible for Figure 5.
   • Nicole D. Staudt, Hubert Kalbacher and Stefan Stevanovic were responsible for Figure 6.

5) Writing the manuscript. The following authors were responsible for writing the manuscript:
   • Nicole D. Staudt and Gerd Klein were responsible for writing the manuscript

6) Contributors Listed in Acknowledgments: We are grateful to Diane Blaurock (Center for Regenerative Biology and Medicine (ZRM), University of Tübingen) for critically reading the manuscript. We thank Drs. Bernd Rolauffs and Peter de Zwart (Center for Traumatology, BGU Hospital Tübingen) for their assistance in obtaining the bone specimens. N.D.S. thanks Timo Herrmann (Kalbacher lab) and Drs. Thomas Rückrich and Marianne Kraus (Medical and Natural Sciences Research Centre
Tübingen) for their initial help and introduction to the MALDI-TOF analysis and the active site labeling procedure, respectively.

The Landesstiftung Baden-Württemberg gGmbH (Stuttgart, Germany) is kindly acknowledged for their financial support in the context of the program “Adult Stem Cells” (grant No. P-LS-AS/HSPA8-13). The work was also supported by a stipend (GK794) to Nicole Staudt by the Deutsche Forschungsgemeinschaft. DCG-04 synthesis and distribution was made possible with support from NIH Roadmaps National Technology Centers for Networks and Pathways grant U54 RR020843 and R01 EB 005011 (to MB).